U.S. Patent Application of Tokmulin et al.

Serial No.: 08/860,763

Art Unit: 1763



OFFICE OF PETITIONS

noted that claims 7-13 have been allowed while claims 4 and 5 have merely been objected to as being dependent on a rejected claim. By this Amendment, allowable claim 4 has been canceled without prejudice and re-written as new claim 14. Claim 5, which depends from claim 14, should also be allowed with the allowance of claim 14.

The rejections of claim 2, 3 and 6 is respectfully traversed.

Claim 2 includes structural limitations which are not disclosed or suggested in Gasworth. Thus, while the Examiner has outlined some of the language in claim 2 and has tried to draw a parallel with the Gasworth apparatus, it is clear that the Examiner has omitted some elements, features or functions recited in claim 2 which are not disclosed or suggested in the reference. To begin with, the present invention is for a device for treating wafers with a plasma jet. Gasworth on the other hand is for an apparatus for producing diamonds by chemical vapor deposition. The applications, therefore, are very different. Also, while the Examiner has stated that Gasworth discloses a "plasma jet generator", the Examiner has failed to state that claim 2 also requires the holders to be in the form of horizontal platforms; that the plasma jet generator be arranged to generate a plasma jet directed upwardly and that the gas supplying means be located so that the resulting gas flow permits the positioning of the platform near a holder while avoiding the need to provide additional cooling of the plasma generator due to natural convection of the hot gases. Gasworth, on the other hand, uses a substrate 44 that is *inclined* to the horizontal and, in Fig. 1, is shown to be practically in a vertical plane. The diamond film is deposited on the substrate. Also, the plasma jet is directed downwardly, the exact opposite of the claimed language. Further, the

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gas flow in Gasworth appears to enter cooling plate 50 and is not "in fluid flow communication" with the gas supplying means to perform the function required in the last four lines of claim 2. In fact, the Examiner has pointed out that the gas supply means in Gasworth is shown at 18, 20 while the cooling means is shown at 52 in Fig.1. It would be evident to one skilled in the art that these two elements are not in fluid flow communication as contemplated by the invention and clearly recited in claim 2.

The Examiner's position in paragraph (vi) on page 4 of the Office Action is respectfully traversed. Claim 2 recites specific structure to perform the desired functions, including the arrangement of the wafer 29 as shown in Fig. 4 during use. Clearly, this could not be achieved with Gasworth. It should be evident that simply flipping the Gasworth device "upside-down" as proposed by the Examiner would not result in the same structure and/or same function. Even after being flipped, Gasworth would still not result in a device that would permit the positioning of a wafer near the holder as a result of the dynamics of the gas flows, gravity, etc. As noted, in Gasworth the film 56 is not near but on the substrate 44 which is, in turn, mounted directly on the drive. However, clearly, the device needed to deposit a diamond film on a substrate is quite different than treating a wafer. It is respectfully submitted that the Gasworth device cannot practically be used for the treatment of wafers in accordance with the invention.

Claim 3 depends on claim 2 and should be allowed with the allowance thereof.

In view of the foregoing, it is respectfully requested that the rejection in the Office Action be reconsidered and withdrawn.

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This application is now believed in condition for allowance. Early allowance and issuance is, accordingly, respectfully solicited.

If the Examiner maintains the rejections of claims 2, 3 and 6, it is respectfully requested that this Amendment be entered at least for purposes of appeal since the amendments to claim 2 places the rejected claims in better condition for appeal.

Dated: January 25, 2001 Lackenbach Siegel Marzullo

One Chase Road Scarsdale, NY 10583

Telephone: 914 723 4300

MG/as

Respectfully submitted,

LACKENBACH SIEGEL

Attorneys for Applicant(s)

By:

MYRON GREENSPAN Reg. No.: 25,680

Certificate of Deposit by Express Mail

I hereby certify that this correspondence is being filed by depositing same in an envelope marked Express Mail, addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231, in a duly marked U.S. Postal Service drop box, with appropriate postage, on the following date:

Mxxon Greenspan

Signature

January 25,\2001

Date

Applicant hereby petitions that any and all extensions of time of the term necessary to render this response timely be granted. Costs for such extension(s) and/or any other fee due with THIS FEE DUE WITH THIS PAPER THAT ARE NOT FULLY COVERED BY AN ENCLOSED CHECK MAY BE CHARGED TO DEPOSIT ACCOUNT #10-0100.